

EDMUND SPIRA

Systems Architect and Full-Stack Engineer

Nairobi, Kenya

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PROFESSIONAL SUMMARY

Systems architect and full-stack engineer with more than five years of experience building production software across field operations, payments, geospatial data, mobile, web, and infrastructure. Led technical delivery for Kenya's KISIP 2 Digital Public Works platform, processing 8M task responses and supporting more than KES 11.3M in auditable disbursements to 672 young people.

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, Python, SQL

Frontend and mobile: React, Next.js, React Native, Android, iOS, progressive web apps

Backend and data: Node.js, PostgreSQL, Prisma ORM, REST APIs, SQLite

Cloud and operations: Linux, Ubuntu, Docker, AWS, Vercel, DNS, application security

Domain platforms: OpenStreetMap, HOTOSM, ODK Central, JOSM, Leaflet, BTCPay Server, Lightning Network, M-Pesa, Paystack, IntaSend, Mikrotik

PROFESSIONAL EXPERIENCE

2026 TO PRESENT

Tech Co-Founder

Insats I Nairobi, Kenya

- Lead product architecture, engineering, infrastructure, and field deployment for an early-stage venture.
- Run phased field trials that test discovery, logging, and verification workflows with real data before expanding the product.

2026 TO PRESENT

Cross-Platform Software Engineer

Arknode AI I Remote

- Build and maintain one product across native Android, native iOS, and a React web client within an NDA-protected environment.
- Translate shared product contracts into platform-specific behaviour, trace defects across client and API boundaries, and verify fixes on all three platforms.

MARCH 2025 TO AUGUST 2026

Systems Architect and Full-Stack Engineer

Spatial Collective I Nairobi, Kenya

- Led software architecture, full-stack engineering, deployment, and technical operations for a platform that processed 8M task responses and supported 126,090 OpenStreetMap building records.
- Replaced Excel sheets, a Caspio database, disconnected Python scripts, and an outdated Kotlin app with five connected modules backed by a 76-table PostgreSQL schema.
- Engineered auditable quality-bonus payroll that disbursed more than KES 11.3M to 672 young people with zero recorded fraud.
- Built map-first review and 360-image navigation workflows with confidence scoring; Alex Okumu provided QGIS and geospatial support for mapping workflows.

2022 TO PRESENT

Founder and Systems Architect

Novyrix | Nairobi, Kenya

- Founded an independent systems architecture and technical consulting practice serving NGOs, tourism businesses, and social enterprises.
- Delivered production platforms and payment integrations for more than 15 clients using M-Pesa, Paystack, IntaSend, and BTCPay Server.

2023 TO PRESENT

Volunteer Technical Lead

Afribit Africa | Kibera, Nairobi

- Lead technical delivery for Bitcoin payment, merchant, wallet, mapping, and network infrastructure used by a local circular economy.
- Built and maintain afribit.africa, BTCPay Server, and Lightning Network nodes supporting more than 40 active merchants.
- Built Satenet for Mikrotik Wi-Fi management, contributed to Afribit Pay Wallet using Blink's architecture, and mapped merchants through OpenStreetMap and BTCMap.

2020 TO 2022

Geospatial Mapping Specialist

Spatial Collective | Nairobi, Kenya

- Mapped and validated geospatial data across Nairobi's informal settlements using Humanitarian OpenStreetMap Team tools and JOSM, developing field experience that later informed digital public works systems.

EDUCATION AND PROFESSIONAL DEVELOPMENT

2023

Software Engineering Programme, full-stack coursework

ALX Africa

2021

International Computer Driving Licence

Zetech University